

Thermocouple and Heater Rod Installation Instruction

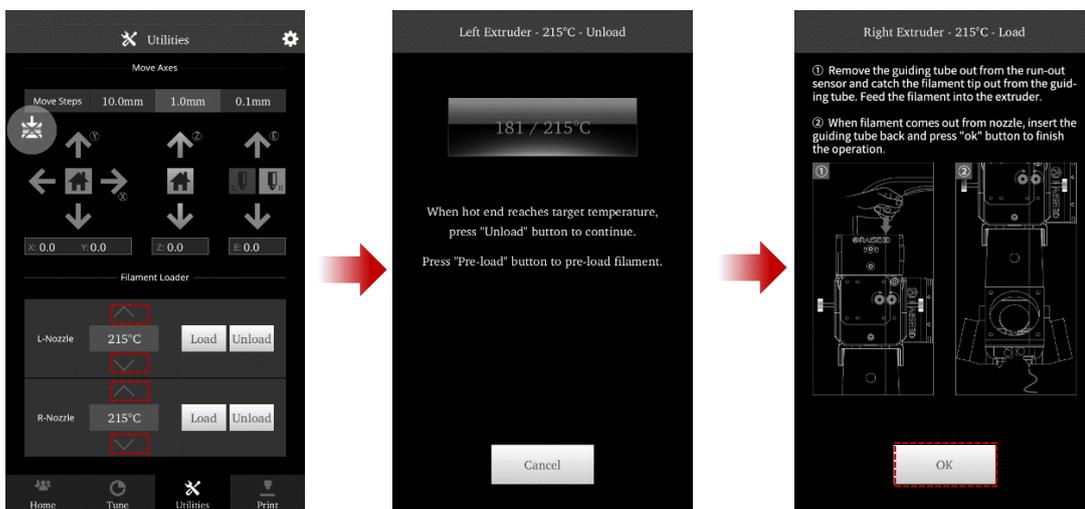
STEP 1: Drop the build plate

Move the build plate to home position. Select 10mm as Move Steps, and drop the build plate for 250mm.



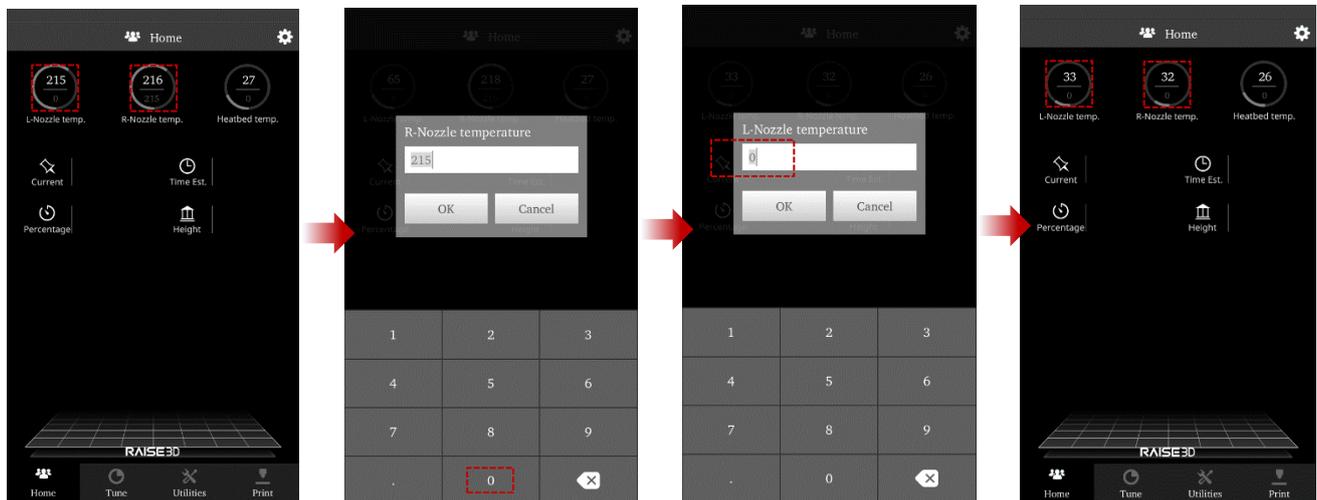
Step 2: Unload filament

Set both extruders to unload temperature (recommend to set the target temperature to 5-10C higher than its normal printing temperature). Unload the filament, and remove the filament and filament guide tubes from the extruder.



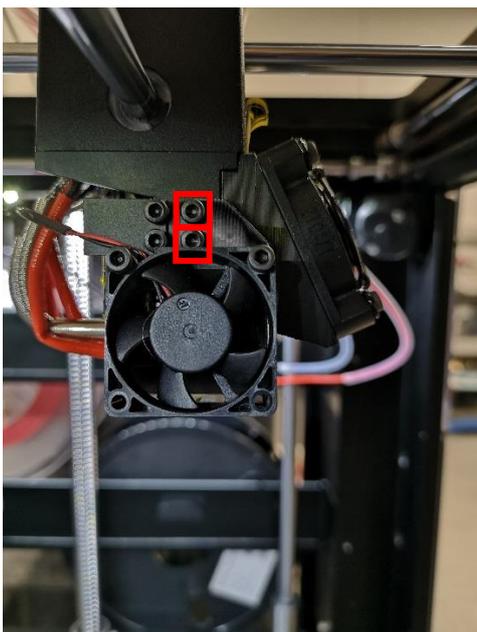
Step 3: Cool down

At home page, set the nozzle temperature to be 0C and wait for the nozzles to reach ambient temperature.

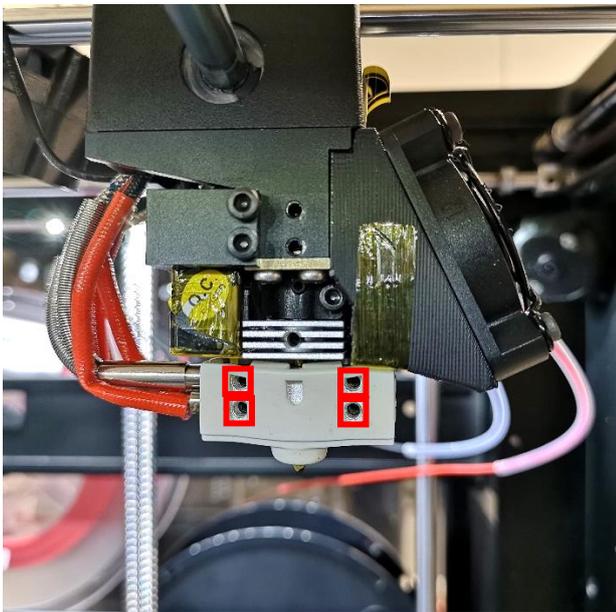


Step 4: Remove model cooling fan

Remove the two fixing screws from model cooling fan with 2.5mm hex wrench.

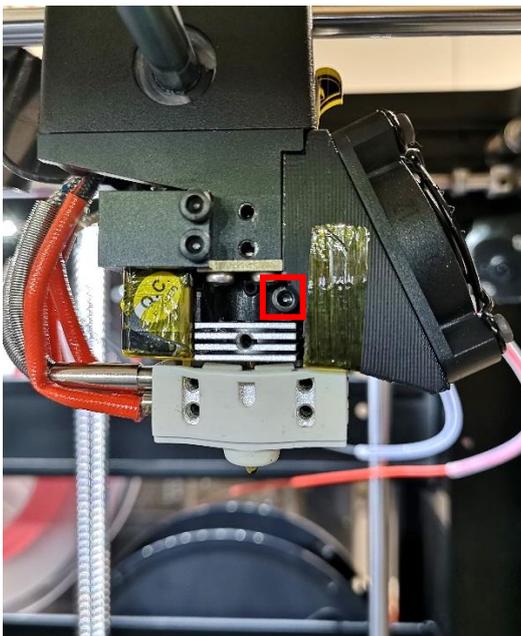


Loose the 4 set screws inside the heating block.

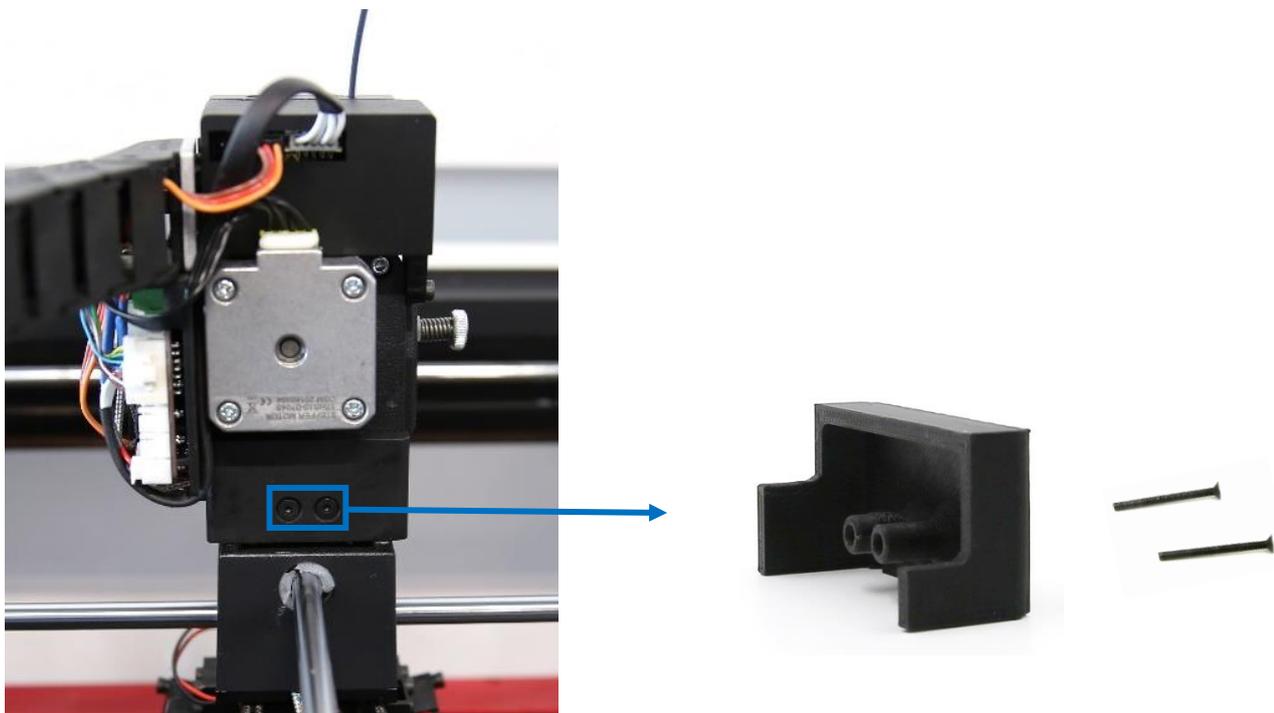


Step 5: Remove Hot-end

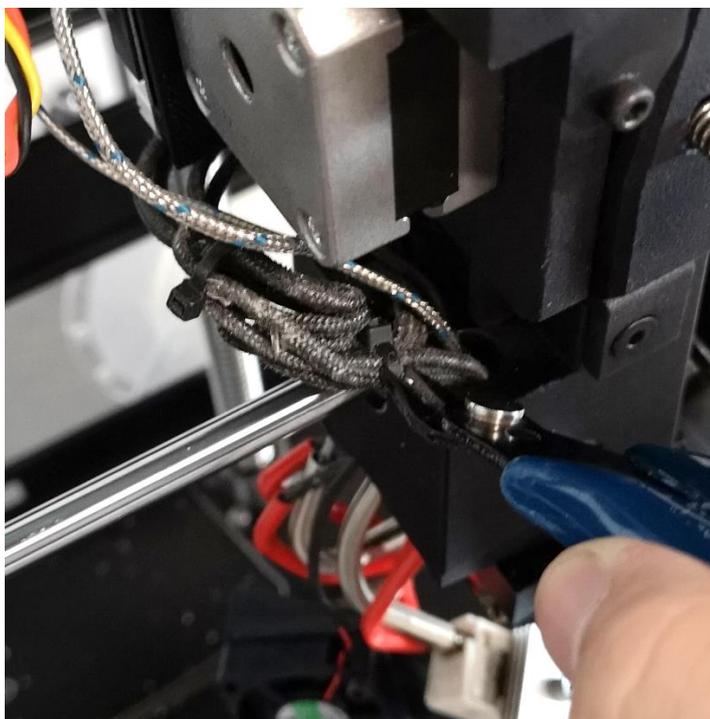
5.1 Loosen the fixing screw marked in red with 2.5mm hex wrench. Remove the Hot-end from the print head. Take the Heating Rod and Thermocouple out from the Hot-end.



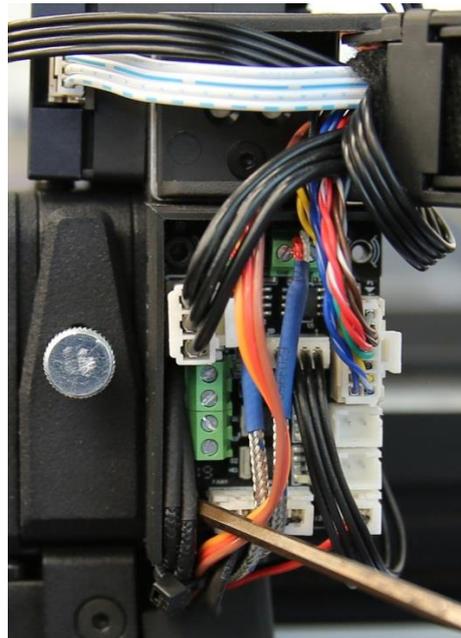
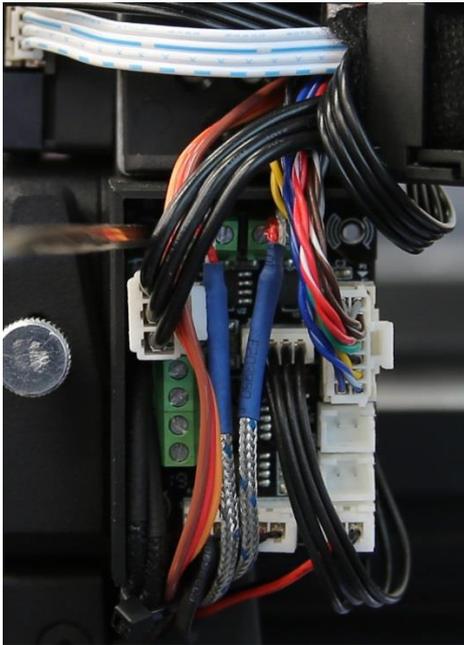
5.2 Remove the two fixing screws from the black back casing and take the casing off.



5.3 Cut the zip tie fixing cables.



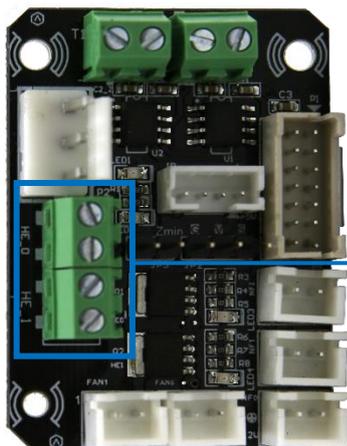
5.3 Remove the two fixing screws from Extruder Board.



STEP 6: Installation

Take Left Side as reference to explain how to do the replacement.

- Remove the Heating Rod or Thermocouple from the terminals marked below by loosening the fixing screws with flat head screwdriver on Extruder Board.

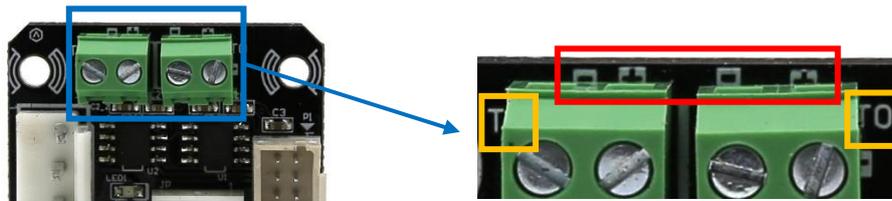


HE _ 0 Heating Rod for Left Nozzle

HE _ 1 Heating Rod for Right Nozzle



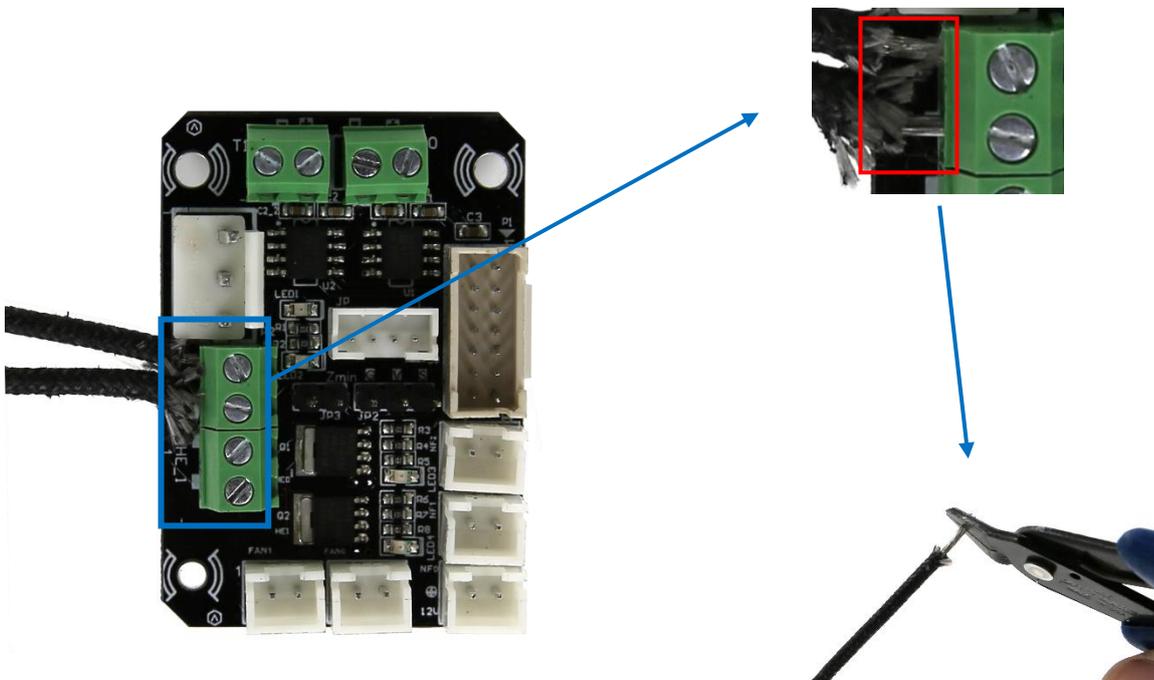
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T 0 Thermocouple for Left nozzle
T 1 Thermocouple for Right nozzle

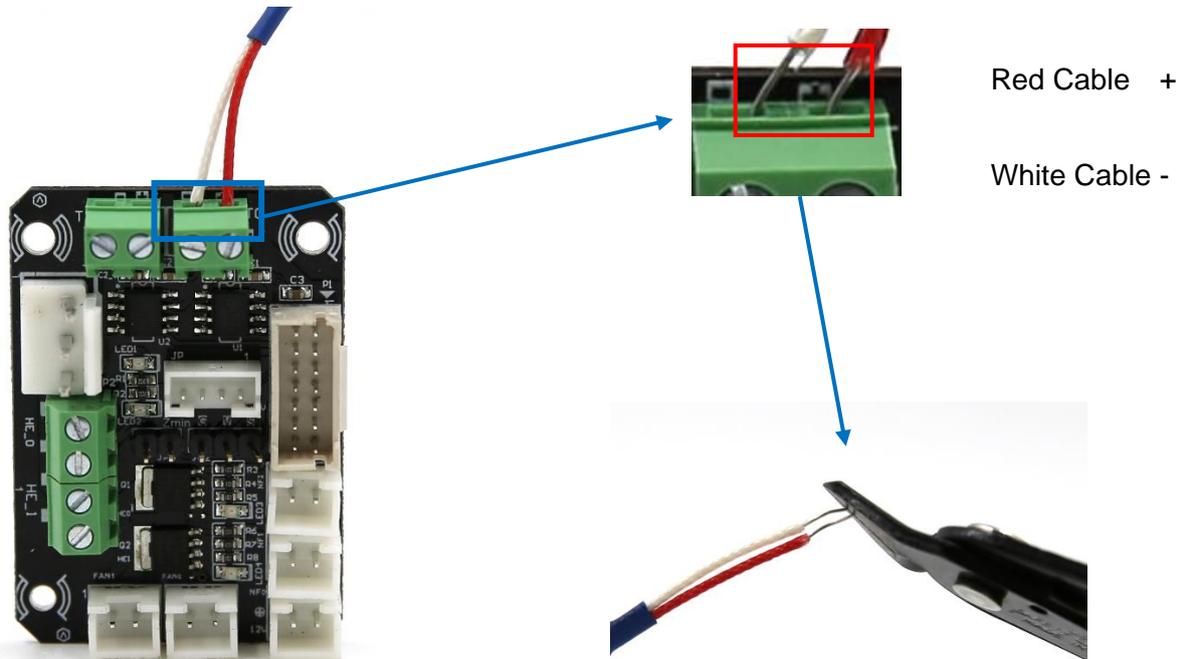
Red Cable +
White Cable -

- Insert the cables of the Heating Rod into the terminal and tighten the screws to fix.
- Ensure there is no exposed wired touching with each other, or it may do harm to the printer.

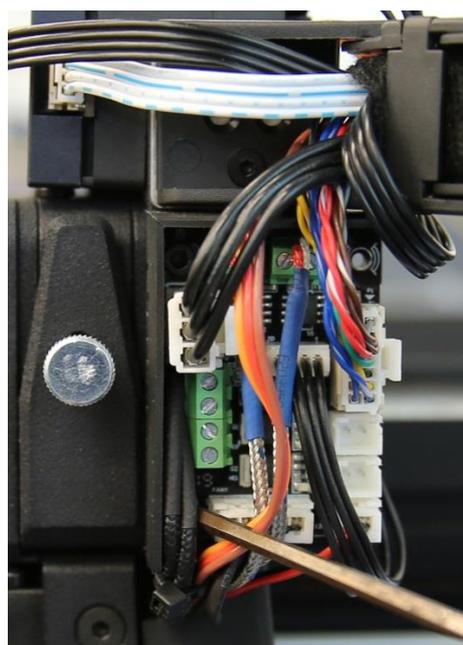


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- Insert the cables of the Thermocoupler into the terminal and tighten the screws to fix.
- Ensure there is no exposed wired touching with each other, or it may do harm to the printer.
- Pay attention to the polarity. Red one goes to positive pole, white one goes to negative pole.

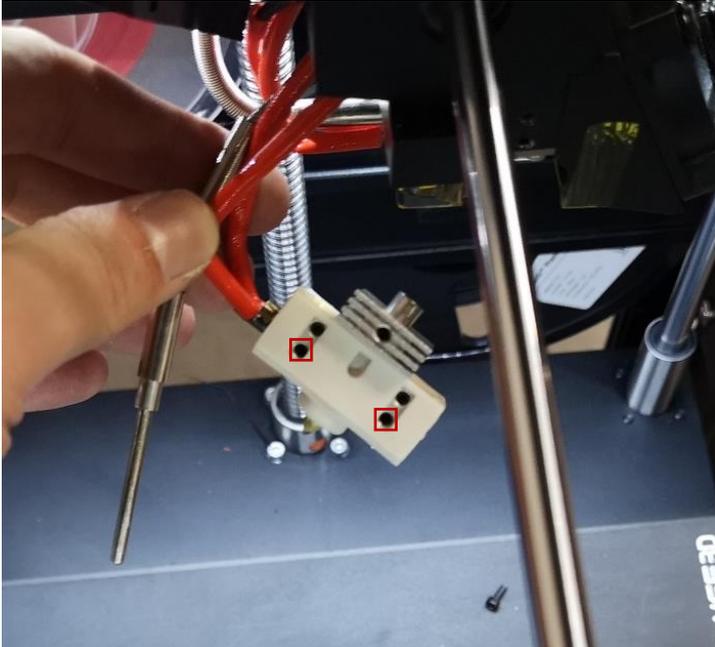


Fix the board holder. Note that the bottom screw is M2.5 and the upper one is M3.

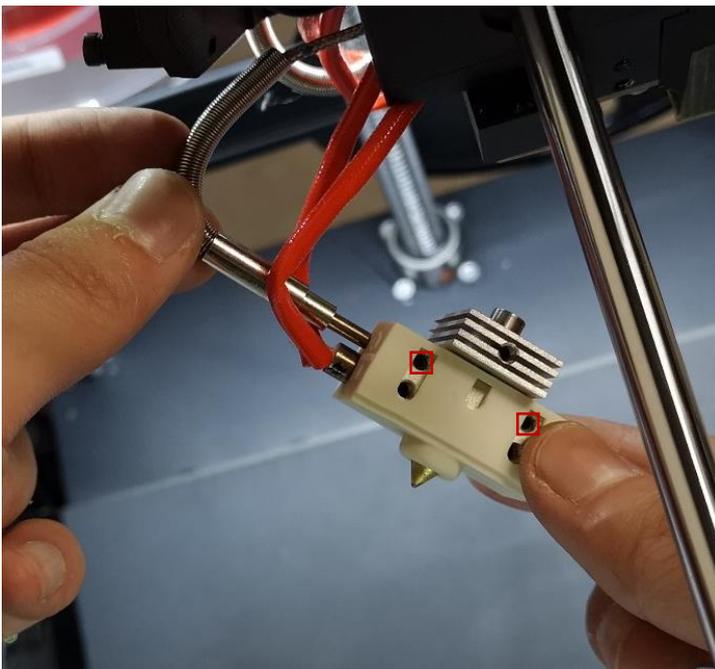


Step7: Replace the hot end

7.1 Insert the Heating Rod all the way into the lower hole of the Hot-end until it reaches the other end. Tighten the two set screws.

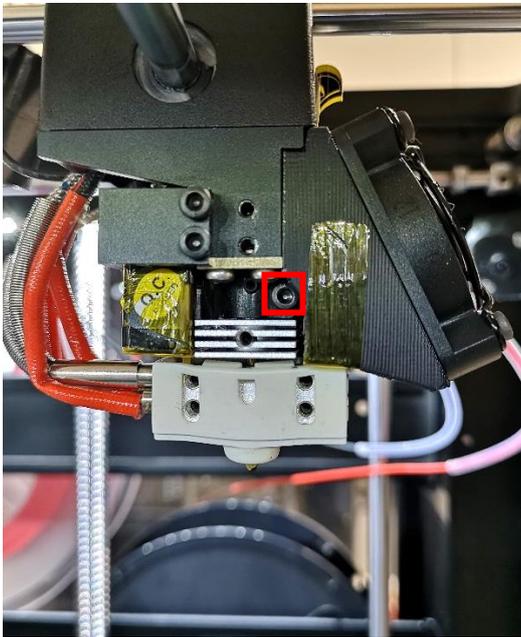


7.2 Insert the Thermocouple all the way into the upper hole of the Hot-end. Tighten the two set screws.

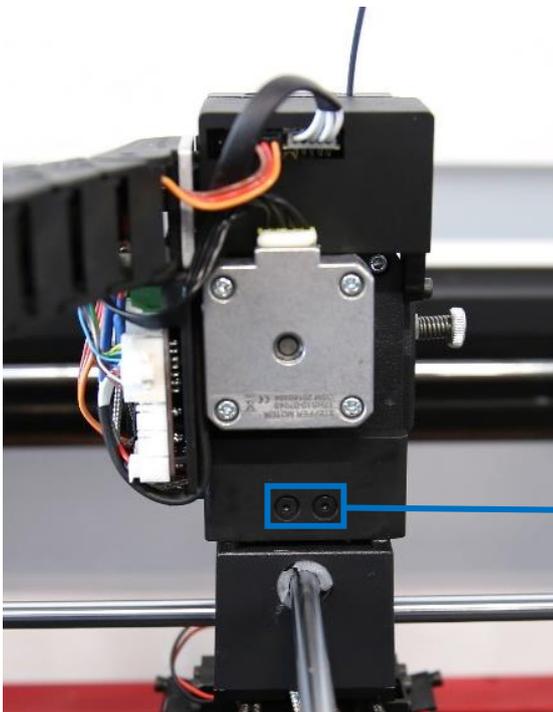


Step 8: Install hot end

8.1 Insert the Hot-end back onto the collar, and push up until the upper surface of the fin touches the collar. Tighten the fixing screw.

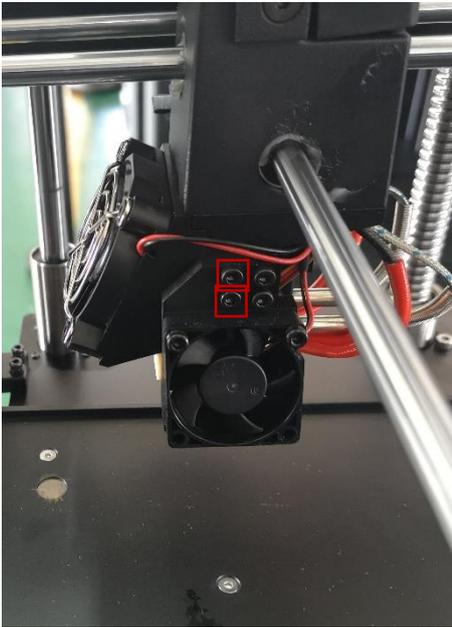


8.2 Bind the cables together with zip ties and fix the casing back to cover the cables.

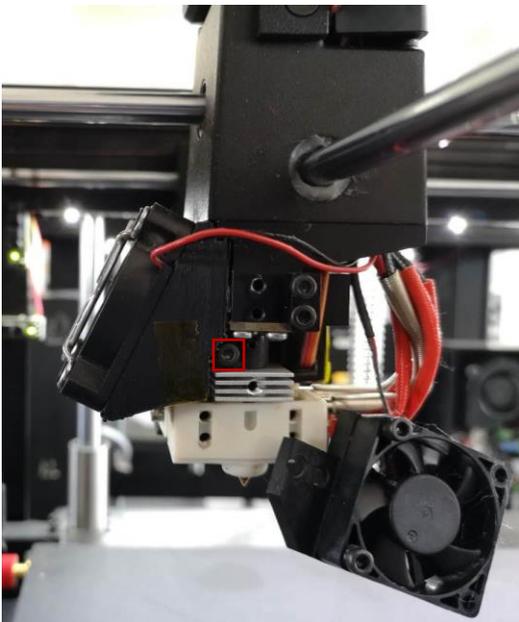


Step 9: Calibrate the other Hot-end

- Take the right side fan off by removing the two fixing screws.



- Loosen the fixing screw marked in red with 2.5mm hex wrench.

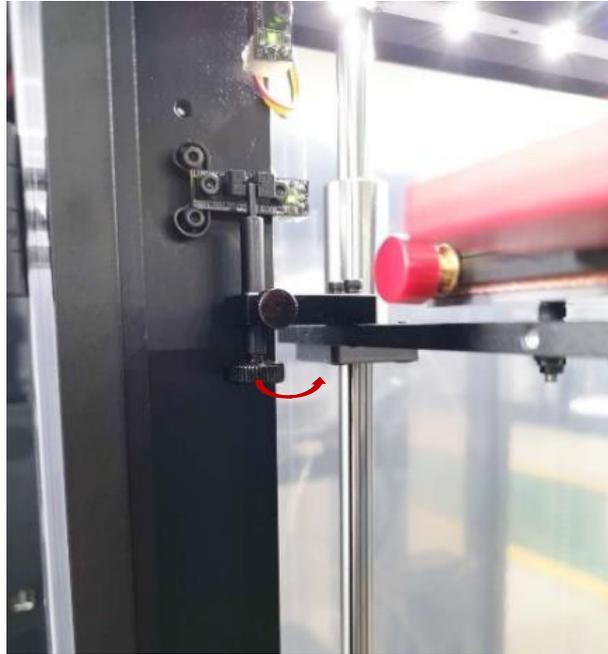


- Push the Hot-end up until the upper surface of the fin touches the collar. Tighten the fixing screw.



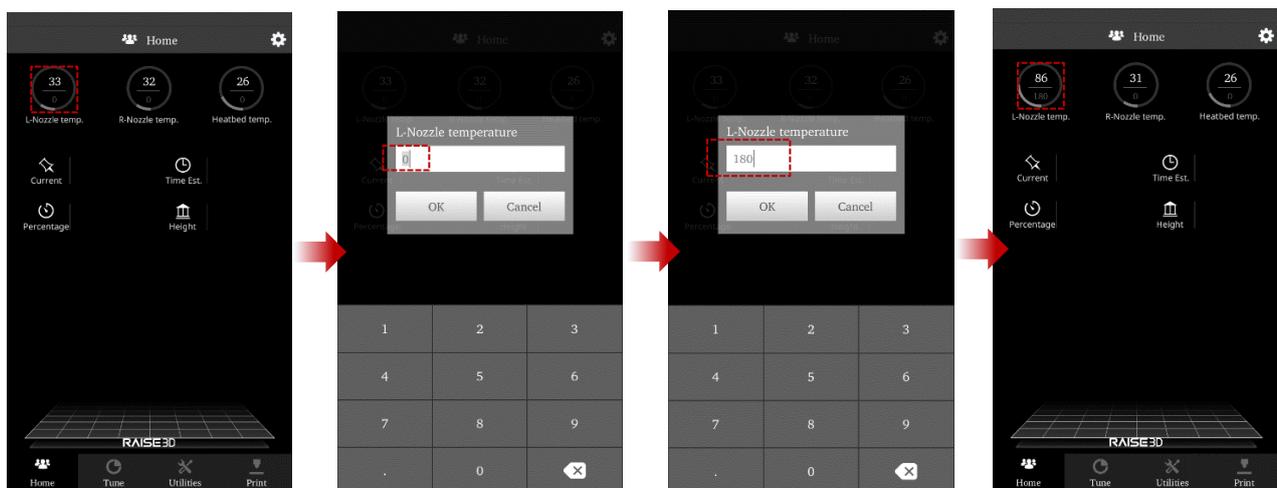
STEP 10: Adjust the Z Offset

Loosen the Z thumb screw anti-clockwise for one revolution.

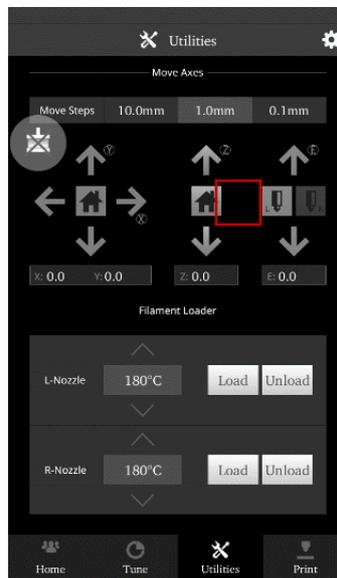


STEP 11: Home Z

- In the home page, set Left Nozzle temperature to be 180C.

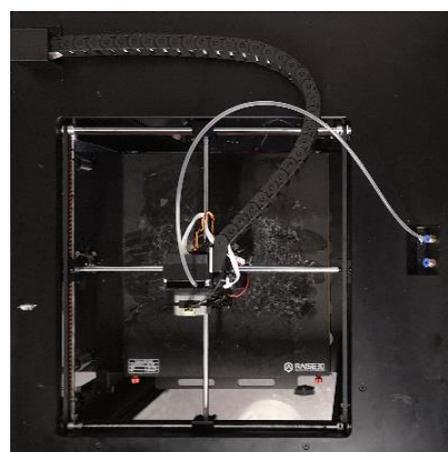


- In the utilities page, choose Z home to bring the build plate to origin position.



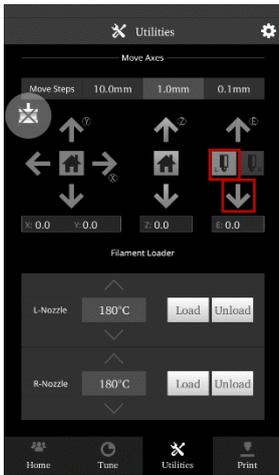
STEP 12: Move the Extruder to Center

Disable the motor with Motor Disable button, and move the extruder to center position.



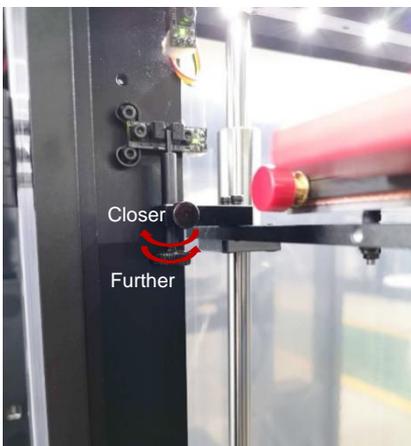
STEP 13: Check the Nozzle Height

13.1 Enable left Nozzle.



13.2 Adjust the original position of the build plate by turning the thumb screw on the left-front corner of the Z-plate. The higher the screw stands out (anti-clockwise rotation), the further the distance between the nozzle and the build plate gets.

Check the distance with the feeler gauge. Keep checking and adjusting the screw until there is resistance when sliding the feeler gauge into the gap between nozzle and build plate.



STEP 16: Install Fans

Install the left and right side fans back

